

## WHAT IS CLAIMED IS:

1. An apparatus for remote delivery and manipulation of a miniature tool adjacent a work piece in a restricted space, comprising:

- a) a tool carrier;
- b) a carriage for manipulating said tool carrier relative to a work piece; and
- c) a remote actuator for operating said carriage.

2. The apparatus of Claim 1, further comprising:

- a) means for delivery of said tool carrier in a restricted space.

3. The apparatus of Claim 1, further comprising:

- a) a track member operably connected to said carriage; and
- b) said remote actuator comprising a hydraulic actuator.

4. The apparatus of Claim 3, further comprising:

- a) a plurality of said track members operably connected to said carriage; and
- b) said track members being movable relative to said carriage.

5. The apparatus of Claim 4, wherein:
- a) one of said track members is movable independent of the other track members.
6. The apparatus of Claim 4, wherein:
- a) said hydraulic actuator comprises a plurality of actuator pistons; and
  - b) each of said track members is independently operated by a respective carriage piston.
7. The apparatus of Claim 6, wherein:
- a) a displacement of a carriage piston is substantially similar to a displacement of a corresponding actuator piston.
8. The apparatus of Claim 7, further comprising:
- a) means for synchronizing a displacement of a carriage piston with a displacement of a corresponding actuator piston.

9. The apparatus of Claim 8, further comprising:
  - a) hydraulic lines for connecting said actuator pistons with said carriage pistons; and
  - b) means for pressurizing said hydraulic lines.
10. The apparatus of Claim 1, further comprising:
  - a) a secondary actuator for operating said remote actuator.
11. The apparatus of Claim 10, wherein:
  - a) said secondary actuator is positioned remote from said remote actuator.
12. The apparatus of Claim 11, further comprising:
  - a) means for detecting the position of the miniature tool relative to a work piece.
13. The apparatus of Claim 12, wherein:
  - a) the miniature tool comprises an ultrasonic testing probe; and
  - b) said position detecting means comprises an encoder operably connected to said remote actuator.

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14. The apparatus of Claim 13, further comprising:
- a) imaging means for displaying information about the work piece.
15. The apparatus of Claim 1, wherein:
- a) the miniature tool comprises an ultrasonic testing probe.
16. An apparatus for remote delivery and manipulation of a miniature tool adjacent a work piece in a restricted space, comprising:
- a) a tool carrier;
  - b) carriage means for manipulating said tool carrier relative to a work piece;
  - c) a hydraulic actuator for operating said carriage means; and
  - d) means for delivery of said tool carrier in a restricted space.
17. The apparatus of Claim 16, further comprising:
- a) first means for moving said tool carrier in a circumferential direction of the work piece.

18. The apparatus of Claim 17, wherein:

- a) said first means comprises a track member operably connected to said carriage means and being movable relative thereto.

19. The apparatus of Claim 16, further comprising:

- a) second means for rotating said tool carrier relative to the work piece.

20. The apparatus of Claim 19, wherein:

- a) said second means comprises a plurality of track members operably connected to said carriage means; and
- b) each said track member is independently movable relative to said carriage means.

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21. The apparatus of Claim 19, further comprising:

- a) third means for moving said tool carrier axially along the work piece.

22. The apparatus of Claim 21, wherein:

- a) said third means comprises said tool carrier delivery means.

23. The apparatus of Claim 16, wherein:

- a) said carriage means comprises a plurality of movable track members; and
- b) said carriage means comprises a piston for moving one of said track members.

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24. The apparatus of Claim 23, wherein:

- a) said carriage means comprises a plurality of first pistons each for moving a corresponding track member.

25. The apparatus of Claim 24, wherein:

- a) said hydraulic actuator comprises a plurality of second pistons corresponding to said first pistons.

26. The apparatus of Claim 25, further comprising:

- a) means for synchronizing a displacement of one of said first pistons with a displacement of a corresponding second piston.

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27. The apparatus of Claim 26, further comprising:
- a) hydraulic lines for connecting said first and second pistons;  
and
  - b) means for pressurizing said hydraulic lines.
28. The apparatus of Claim 25, wherein:
- a) said first and second pistons comprise double acting pistons.
29. The apparatus of Claim 16, further comprising:
- a) a secondary actuator for operating said hydraulic actuator.
30. The apparatus of Claim 29, wherein:
- a) said secondary actuator is positioned remote from said hydraulic actuator.
31. The apparatus of Claim 30, further comprising:
- a) means for detecting the position of the miniature tool relative to a work piece.

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